

20020710.ba v03\_n363.bam.20020710

>From ???@??? Wed Jul 10 13:32:43 2002 -0500  
Message-Id: <200207101832.g6AIWKAA012217@sco.theporch.com>  
Date: Wed, 10 Jul 2002 13:31:32 CDT  
From: Old Tube Radios <boatanchors@theporch.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: BOATANCHORS digest 3363

BOATANCHORS Digest 3363

Topics covered in this issue include:

- 1) Re: GB> WANTED: Jones Micro-Match, LP Filter, Philco 37-10 Info  
by Henry van Cleef <vancleef@eskimo.com>
- 2) Re: This is Sad!  
by BobR <brainbol@sunflower.com>
- 3) Halli SX-28 Knob & metal Dial f/s  
by Bob Kemp <rkemp@mr.net>
- 4) RE: transmitting OTR -> broadcast receivers  
by Roy Morgan <roy.morgan@nist.gov>
- 5) RE: transmitting OTR -> broadcast receivers  
by Bob Roehrig <broehrig@aurora.edu>
- 6) Re: transmitting OTR -> broadcast receivers  
by Richard Post <postr@ohiou.edu>
- 7) Re: This is Sad!  
by Arden Allen <gumbear@pacbell.net>
- 8) ADMINISTRIVIA: No More Reposts  
by listown@nanniandjack.com (Mail List Owner)
- 9) ADMINISTRIVIA: No More Reposts  
by listown@nanniandjack.com (Mail List Owner)
- 10) Re: This is Sad!  
by Bob Roehrig <broehrig@aurora.edu>
- 11) R390 (Not A) Operator's manual  
by jan@skirrow.org
- 12) Re: transmitting OTR -> broadcast receivers  
by "Barry L. Ornitz" <ornitz@tricon.net>
- 13) Re: transmitting OTR -> broadcast receivers  
by "Hue Miller" <kargo\_cult@msn.com>
- 14) Re: Gen Rad 667A L-bridge  
by "Hue Miller" <kargo\_cult@msn.com>
- 15) Re: transmitting OTR -> broadcast receivers  
by Arden Allen <gumbear@pacbell.net>
- 16) Re: transmitting OTR -> broadcast receivers  
by Bob Roehrig <broehrig@aurora.edu>
- 17) RE: transmitting OTR -> broadcast receivers  
by "Bill Hawkins" <bill@iaxs.net>
- 18) RE: transmitting OTR -> broadcast receivers

by Bob Roehrig <broehrig@aurora.edu>  
19) Re: transmitting OTR -> broadcast receivers  
by steve berg <z931086@corn.cso.niu.edu>  
20) Re: transmitting OTR -> broadcast receivers  
by "A. B. Bonds" <ab@vuse.vanderbilt.edu>

-----  
From: Henry van Cleef <vancleef@eskimo.com>  
Message-Id: <200207090636.XAA05371@eskimo.com>  
Subject: Re: GB> WANTED: Jones Micro-Match, LP Filter, Philco 37-10 Info  
To: Old Tube Radios <boatanchors@theporch.com>  
Date: Tue, 9 Jul 2002 00:36:53 -0600 (MDT)  
Cc: boatanchors@theporch.com (Old Tube Radios)  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

The esteemed Bob Roehrig has said:

>  
> On Mon, 8 Jul 2002, Scott Robinson wrote:  
>  
> > I don't know what schematic you are looking at, but my 37-10 console uses a  
> > field coil speaker. I doubt that any non-portable pre-WWII radio used a PM  
> > speaker as the magnetic materials to make a durable permanent magnet did  
> > not yet exist.  
>  
> You are probably right Scott. I looked rather quickly, and was looking for  
> a connector of some kind. I see wire colors given so it is probably a  
> hard-wired speaker. In any event, the resistance looks like 433 ohms as  
> near as I can read it.  
>  
> What freqs does it cover. I see a discriminmator stage & reactance tube  
> also. Does it actually receive FM?  
>  
>

Hmm: This is ringing some bells with me. Terman's "Radio Engineering" 2nd edition (1937) covers a set that is unidentified, but looks like a Philco, that has a Foster-Seely discriminator and a reactance tube. It's an AFC (automatic frequency control) circuit. The set is AM. Foster and Seely designed (and patented) the circuit as an AFC driver. Major Armstrong's adaptation of the circuit, with a preceding limiter to get rid of AM in the audio, was something that the inventors didn't foresee.

No big problem to replace a field coil speaker with a PM type. You'll need to get a choke and mount it in the set's power supply between the caps to replace the field. Something like 10 hy. at 125 ma. will work just fine with an 80 rectifier and 8-10mfd. filter caps. Hammond

offers suitable chokes for the purpose.

Hank

--

Hank van Cleef (vancleef@eskimo.com, hvanclee@nyx.net)  
1986 420SEL

-----  
Message-ID: <3D2AC04B.CCC69233@sunflower.com>  
Date: Tue, 09 Jul 2002 05:51:55 -0500  
From: BobR <brainbol@sunflower.com>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: This is Sad!  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Also check out the seller's "other  
auctions", also sad.  
Bob/WB0AUQ

David Hollander wrote:

>  
> Check out this "Restored" Howard receiver  
>  
> <http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=2119641065>  
>  
> Dave

-----  
Message-ID: <3D2B1D15.5090108@mr.net>  
Date: Tue, 09 Jul 2002 12:27:49 -0500  
From: Bob Kemp <rkemp@mr.net>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Halli SX-28 Knob & metal Dial f/s  
Content-Type: text/plain; charset=us-ascii; format=flowed  
Content-Transfer-Encoding: 7bit

I have the following excess to my needs:  
Main tuning knobs for SX-28/28A. One has the spokes filled in, one does  
not.  
Main Tuning (Metal) logging scale sits behind the left main tuning dial.  
Bob.

-----  
Message-Id: <5.0.0.25.2.20020709111922.02615340@mailserver.nist.gov>

Date: Tue, 09 Jul 2002 11:34:36 -0400  
To: Old Tube Radios <boatanchors@theporch.com>  
From: Roy Morgan <roy.morgan@nist.gov>  
Subject: RE: transmitting OTR -> broadcast receivers  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 01:10 AM 7/9/02 -0500, you wrote:

>Seems like I saw a post here not too long ago re: ways to transmit  
>old-time radio shows, etc. (downloaded off the Internet) to an old  
>broadcast receiver. If so, could someone kindly point me to a good  
>resource (faq/howto?) to start such an endeavor?

AES has a little transmitter kit I think.  
[www.tubesandmore.com](http://www.tubesandmore.com)

You can get recorded old time radio shows of ALL sorts. Start at:  
<<http://www.otr.com/index.shtml>>

There is another source which advertises regularly in my antique radio club\* newsletter:

ERSTWHILE RADIO,  
Box 2284,  
Peabody, MA 01960, USA.  
Nearly 5,000 old American radio shows.  
Catalog \$2.00  
(this place does not seem to have a web site.)

See also the dealers page from Radio Days magazine:  
<[http://www.sigtel.com/radio\\_dealers.html](http://www.sigtel.com/radio_dealers.html)>  
for many many sources.

\* The club I mentioned is the Mid-Atlantic Antique Radio Club.  
See [www.maarc.org](http://www.maarc.org) for more info.  
The associated Radio History Society is at:  
<<http://www.radiohistory.org/>>

Roy

- Roy Morgan, K1LKY since 1959 - Keep 'em Glowing!  
7130 Panorama Drive, Derwood MD 20855  
Home: 301-330-8828 Work: Voice: 301-975-3254, Fax: 301-948-6213  
[roy.morgan@nist.gov](mailto:roy.morgan@nist.gov) --

-----  
Date: Tue, 9 Jul 2002 11:00:59 -0500 (CDT)  
From: Bob Roehrig <broehrig@aurora.edu>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: RE: transmitting OTR -> broadcast receivers  
Message-ID: <Pine.OSF.4.43.0207091058500.215822-100000@mail.aurora.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

> At 01:10 AM 7/9/02 -0500, you wrote:  
> >Seems like I saw a post here not too long ago re: ways to transmit  
> >old-time radio shows, etc. (downloaded off the Internet) to an old  
> >broadcast receiver. If so, could someone kindly point me to a good  
> >resource (faq/howto?) to start such an endeavor?

Some years ago both Knight and Heathkit made what was called "phono oscillators" or "wireless broadcasters". Usually a 2-tube affair that transmitted a weak signal on the broadcast band. Maybe you can find one of those.

73            Bob Roehrig            K9EUI  
Aurora University Telecom/IS dept.  
630-844-4898    broehrig@aurora.edu

-----  
Mime-Version: 1.0  
Message-Id: <a05100303b950c301ef5d@[132.235.47.141]>  
Date: Tue, 9 Jul 2002 12:44:41 -0400  
To: Old Tube Radios <boatanchors@theporch.com>  
From: Richard Post <postr@ohiou.edu>  
Subject: Re: transmitting OTR -> broadcast receivers  
Content-Type: text/plain; charset="us-ascii" ; format="flowed"

Jerry,

I've used a simple hook up to a signal generator with an external modulation input. In my case, an Eico 324. I use a portable cassette player with the speaker output connected to a reversed tube-type audio output transformer. Connect what is normally the primary of the output transformer to the external modulation input of the signal generator and feed the low impedance secondary side with the cassette player's speaker output. Use shielded cable and connect the grounded side of the transformer primary and secondary together to avoid hum.

The transformer provides the impedance match between the player and

the signal generator. Run a piece of wire as an antenna from the signal generator output and tune to the frequency of choice.

If you want to try building an old-time phono oscillator, there is a picture of the Knight-kit Wireless Broadcaster on my Boatanchor Pix page with links to the schematics.

73,  
Rich

```

/\ /\ /\ /\ /\ /\ /\ /\ /\ /\ /\ /\ /\ /\ /\ /\ /\ /\
Boatanchor Pix - KB8TAD
<http://oak.cats.ohiou.edu/~postr/bapix/>

```

Museum of Radio and Technology  
[<http://oak.cats.ohiou.edu/~postr/MRT/>](http://oak.cats.ohiou.edu/~postr/MRT/)  
 \\\\/\\\\\\/\\\\\\/\\\\\\/\\\\\\/\\\\\\/\\\\\\/\\\\\\/\\\\\\/\\\\\\/\\\\\\

```
At 12:55 AM -0400 7/7/02, Jerry Coker wrote:
>Seems like I saw a post here not too long ago re: ways to transmit
>old-time radio shows, etc. (downloaded off the Internet) to an old
>broadcast receiver. If so, could someone kindly point me to a good
>resource (faq/howto?) to start such an endeavor? Right now, I'm
>specifically interested in listening to some old baseball games (.mpg's)
>on an old philco console that I rescued :) If this is too off
>topic for this group, I apologise. TIA.
>
>*****
>Jerry Coker
>Computer Network Support
>Career Services Center
>University of Georgia
```

Date: Tue, 09 Jul 2002 10:07:36 -0700  
From: Arden Allen <gumbear@pacbell.net>  
Subject: Re: This is Sad!  
To: Old Tube Radios <boatanchors@theporch.com>  
Message-id: <0GYZ003VNR71K@mta5.snfc21.pbi.net>  
MIME-version: 1.0  
Content-type: text/plain; charset=ISO-8859-1  
Content-transfer-encoding: 7bit

> Check out this "Restored" Howard receiver .....

Well, he sure isn't a "pro", like so many of us (heh, heh, heh.....).

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

-----  
Message-Id: <200207091815.g69IF06n027121@osr506.nanniandjack.com>  
From: listtown@nanniandjack.com (Mail List Owner)  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: ADMINISTRIVIA: No More Reposts  
Date: Tue, 9 Jul 2002 11:15:00 -0700 (PDT)

Gang-

This is a reminder that reposting of For Sale or Wanted items from other internet sources (lists and auctions) is discouraged.... may prohibited on the BoatAnchors list.

If a BA list member wants to post the item elsewhere and on the BA list, that creates NO problem. What we are trying to avoid are "seen on EBay" or "prime rig on xxx list" type posts... Very few BA members limit their searching to just the BA list!

The problem comes when the poster in the other venue is not asked about the re-post... without the permission of the poster, problems are guaranteed, and I do not have the time, the energy, or the desire to address and deal with the headaches that re-posting causes... I'll grant you that folks in other venues need to be re-calibrated, but I do NOT want to referee! ;^)

So, henceforth, let's have NO re-posts from other sources referred to the list. Yes, I know this may sound pretty provincial, but those who really care have browsers and know where to look, and those who don't, probably don't....

I do NOT need the aggravation of someone who posts to a newsgroup and then has to fight off the hungry folks from the BA list who want to rearrange his viewpoint or calibrate his selling technique.

ENOUGH! Already... Just don't do it!

--

73

Jack, W4KH/Mobile - - - Mailing List Archiver/Owner - - -  
listtown@nanniandjack.com - "Plus ca change, plus c'est la meme chose"  
"Il n'y a que les idiots qui ne changent jamais d'idee"  
Tue Jul 9 11:15:00 PDT 2002

-----  
Message-Id: <200207091815.g69IF0WN027113@osr506.nanniandjack.com>  
From: listtown@nanniandjack.com (Mail List Owner)

To: Old Tube Radios <boatanchors@theporch.com>  
Subject: ADMINISTRIVIA: No More Reposts  
Date: Tue, 9 Jul 2002 11:15:00 -0700 (PDT)

Gang-

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--

73

Jack, W4KH/Mobile - - - Mailing List Archiver/Owner - - -  
listown@nanniandjack.com - "Plus ca change, plus c'est la meme chose"  
"Il n'y a que les idiots qui ne changent jamais d'idee"  
Tue Jul 9 11:14:59 PDT 2002

-----  
Date: Tue, 9 Jul 2002 13:35:10 -0500 (CDT)  
From: Bob Roehrig <broehrig@aurora.edu>  
To: Old Tube Radios <boatanchors@theporch.com>  
cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: This is Sad!  
Message-ID: <Pine.OSF.4.43.0207091334230.226785-100000@mail.aurora.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII



On Tue, 9 Jul 2002, Arden Allen wrote:

> > Check out this "Restored" Howard receiver .....  
>  
> Well, he sure isn't a "pro", like so many of us (heh, heh, heh.....).

It doesn't look "that" bad, but too bad he put the fuseholder on the front instead of under the chassis.

73            Bob Roehrig            K9EUI  
Aurora University Telecom/IS dept.  
630-844-4898   broehrig@aurora.edu

-----  
Message-Id: <4.3.2.7.2.20020709180437.00ce8cc0@mail.islandnet.com>  
Date: Tue, 09 Jul 2002 18:08:59 -0700  
To: Old Tube Radios <boatanchors@theporch.com>  
From: jan@skirrow.org  
Subject: R390 (Not A) Operator's manual  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

Hi All...

I just made a copy for someone of an original R390 Operator's Manual (TM 11-5820-357-10) that I have and ran off a few extras. If anyone wants one, the cost delivered is \$5 to the US and \$6 elsewhere. This is a good quality copy on plain paper, unbound. The contents aren't exactly rocket science, but it is a nice addition to a "complete" radio!

This is for the R-390, NOT for the R-390A.

Jan Skirrow, VE7DJX

... in beautiful British Columbia, Canada

\*\*\* <http://skirrow.org/Boatanchors/> \*\*\*

-----  
Message-ID: <005101c227d3\$78d36da0\$e35362d8@naxs.com>  
From: "Barry L. Ornitz" <ornitz@tricon.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: transmitting OTR -> broadcast receivers  
Date: Wed, 10 Jul 2002 01:34:28 -0400

MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Hi Jerry,

I was probably the one who mentioned this to you in an offline conversation a few months ago. But since others on the list have brought this topic up before, I'll post to the group...

There are several commercial products to do this as well as some kits. Of the products out there at reasonable cost, the Vectronics kit is one of the better ones. A web search on wireless broadcasters will reveal lots of information. Remember you have to meet certain restrictions for such a device to be legal (FCC Part 15).

I am in the process of designing a more professional version, similar to the Vectronics but optimized on fidelity and proper output impedance matching. If you want to get any range over 10 feet or so, this is critical. You also need to operate on the high end of the broadcast band if you want range.

While it might ruffle some feathers on the list, a solid state broadcaster using real components will be more efficient than a tube version. Since the FCC limits your input power, and since tubes require much higher voltages than do transistors, with tubes your transmitter output stage will be operating at a far higher impedance level than with transistors at low voltage. Since the antenna is limited to 3 meters total, its operating impedance is a small fraction of an ohm. It is far more efficient with real components to match the few hundred ohm output impedance of a transistor final to the antenna than it is to match the same antenna to an output impedance over 100K when using tubes.

Sadly this project is pretty far down on my list of things to do lately. It seems I am spending all my time "fighting City Hall" (quite literally) as chairman of the Oversight Committee for a local transportation study. There must be a special place reserved for politicians in Hell, hopefully one even worse than that for lawyers!

But if you only need a few feet of range, and you want an

almost trivial single tube circuit, I have a crude schematic for a suppressor modulated Clapp-Gouriet oscillator using almost any pentode tube that does not internally connect the suppressor to the cathode. Don't expect great performance in fidelity or range for this AM broadcaster as I designed the circuit to be about as simple as you can get - yet still work. Email me for a copy.

73, Barry L. Ornitz      WA4VZQ      ornitz@tricon.net

-----  
From: "Hue Miller" <kargo\_cult@msn.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: transmitting OTR -> broadcast receivers  
Date: Wed, 10 Jul 2002 01:13:23 -0700  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit  
Message-ID: <OE99ncJfKHmj9n1xxWn0001858e@hotmail.com>

----- Original Message -----

From: Barry L. Ornitz <ornitz@tricon.net>  
Subject: Re: transmitting OTR -> broadcast receivers

> I am in the process of designing a more professional  
> version, similar to the Vectronics but optimized on  
> fidelity and proper output impedance matching. If you want  
> to get any range over 10 feet or so, this is critical. You  
> also need to operate on the high end of the broadcast band  
> if you want range.

-Actually, somewhat more than 10 ft. even without proper impedance match. At least, with the old-time "wireless broadcasters". On these, the usual antenna take-off was right off the top of the tuned circuit - a hi-Z point - and the antenna, being only 10 ft or less, was also a high Z, even tho maybe only a 1/10 of the tube impedance.

With the old Knightkit "Wireless Broadcaster" ( triode connected 50C5 "final" ), i remember range of a few hundred feet easy. Used just to broadcast only in the same house, its signal, IMO, was even kinda too strong. BTW, looking thru an old 1943 edition Allied Radio "Radio Builder's Handbook", i see some designs that look fun to try. One or two use a power pentode that looks like it would run more power than the 100 mw the well-designed Knightkit

adhered to. I mean without boosting anything- just looks like how the grids are connected in standard pentode configuration, it would draw more current than the Knight. Maybe i will figure out a way to interface my DeVry board with vac-tube parts and lashup a couple of these for test purposes.

I think in those old (maybe) pre-Part 15 days, there was not a stated spec of 0.1 watt, it was more like "As long as you do not transmit out of your property, or interfere, or potentially interfere with any neighbor", because that is the only restriction i see mentioned in the 1940s articles. I think i even saw one "broadcaster" that used a pentode driving a pentode RF amp, instead of the usual single stage modulated oscillator. That circuit would get out some, even if not perfectly matched. The article did have the usual "no interference" admonition.

Hue Miller

-----  
From: "Hue Miller" <kargo\_cult@msn.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Gen Rad 667A L-bridge  
Date: Wed, 10 Jul 2002 03:43:45 -0700  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="Windows-1252"  
Content-Transfer-Encoding: 7bit  
Message-ID: <0E102nXgffHr1qmd6wU0001875c@hotmail.com>

Some time back a reader here was maybe looking for a manual for this instrument. I have lost 100's of saved emails and that exchange is lost. If you are out there, respond off list.

Hue Miller

"MSN - Less Useful Every Day"

-----  
Date: Wed, 10 Jul 2002 05:59:35 -0700  
From: Arden Allen <gumbear@pacbell.net>  
Subject: Re: transmitting OTR -> broadcast receivers  
To: Old Tube Radios <boatanchors@theporch.com>  
Message-id: <0GZ100GXGAQG76@mta7.pltn13.pbi.net>  
MIME-version: 1.0  
Content-type: text/plain; charset=ISO-8859-1  
Content-transfer-encoding: 7bit

Hi Hue;

> .....

> I think in those old (maybe) pre-Part 15 days, there was not a  
> stated spec of 0.1 watt, it was more like "As long as you do

> not transmit out of your property, or interfere, or potentially  
> interfere with any neighbor", because that is the only restriction  
> i see mentioned in the 1940s articles. I think i even saw one  
> "broadcaster" that used a pentode driving a pentode RF amp,  
> instead of the usual single stage modulated oscillator. That  
> circuit would get out some, even if not perfectly matched. The  
> article did have the usual "no interference" admonition.

I think there is much less danger you would be cited for interference than  
be implored by your neighbors to \*increase power\*. What with the garbage  
that passes for broadcasting these days anything you would play on your  
oscillator would be a damn sight better.

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

-----  
Date: Wed, 10 Jul 2002 08:13:21 -0500 (CDT)  
From: Bob Roehrig <broehrig@aurora.edu>  
To: Old Tube Radios <boatanchors@theporch.com>  
cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: transmitting OTR -> broadcast receivers  
Message-ID: <Pine.OSF.4.43.0207100812240.261827-100000@mail.aurora.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Another thing to consider is going "carrier current" - feed the RF into  
the power line. That gives good local coverage with plenty of signal  
strength while still being legal.

73 Bob Roehrig K9EUI  
Aurora University Telecom/IS dept.  
630-844-4898 broehrig@aurora.edu

-----  
From: "Bill Hawkins" <bill@iaxs.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: RE: transmitting OTR -> broadcast receivers  
Date: Wed, 10 Jul 2002 11:10:25 -0500  
Message-ID: <000401c2282c\$4cea70e0\$290aa8c0@darius>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Bob Roehrig wrote:

>Another thing to consider is going "carrier current" ...

Sometime in the mid fifties, I worked for a small outfit called Hospital Radio. I built some of the carrier current transmitters used to allow bedside radios to work inside the steel framing of a hospital. You could hear the signal on a car radio from the power lines until you passed a distribution transformer.

The Hospital Radio device was really a power amplifier, taking RF from an antenna tower and cranking it up to 20 watts DC input that was coupled to the power line. The car radio experiment was done with a Chicago radio station at a location south of Boston, MA. Came in loud and clear until you passed the pole pig.

I built a CC transmitter with what I'd learned, but it's a MOPA rig using 6AC7 and 5881, Stancor PC8404 260-0-260 at 90 ma, C1002 15 Hy 75 ma choke and A7949 12 watt output transformer connected for plate modulation driven by an audio amplifier 4 ohm output. The crystal is a Bliley type MC85 595 Kc unit. The tank is 20 turns of SCC #18 close wound on a 3.7 inch diameter form tuned by a dual 365 pf variable capacitor.

It hasn't been used since the sixties. I don't know what laws apply to CC these days. Is CC exempt from Part 15? It sure makes a power line radiate, with better range at lower frequencies.

Bill

-----  
Date: Wed, 10 Jul 2002 11:26:41 -0500 (CDT)  
From: Bob Roehrig <broehrig@aurora.edu>  
To: Old Tube Radios <boatanchors@theporch.com>  
cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: RE: transmitting OTR -> broadcast receivers  
Message-ID: <Pine.OSF.4.43.0207101122410.103588-100000@mail.aurora.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Wed, 10 Jul 2002, Bill Hawkins wrote:

> Sometime in the mid fifties, I worked for a small outfit called  
> Hospital Radio.

My only experience with CC was at Valparaiso Tech in the late 50's. Believe the rig was an 807 final running about 20 watts. We had a complete soundproof studio/control room setup with console & turntables, etc.

The campus was small, the station was in the only dorm, so coverage was excellent. On a good night, taking the right roads, we could copy the signal all the way to Michigan City as long as we were near the power lines. Guess there weren't too many transformers along the route to block the signal.

73            Bob Roehrig            K9EUI  
Aurora University Telecom/IS dept.  
630-844-4898    broehrig@aurora.edu

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Message-ID: <3D2C692A.EEDFE697@corn.cso.niu.edu>  
Date: Wed, 10 Jul 2002 12:04:42 -0500  
From: steve berg <z931086@corn.cso.niu.edu>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
CC: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: transmitting OTR -> broadcast receivers  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I was one of the engineers and the news director at KWLN, a carrier current station at Nebraska Wesleyan back in the mid 1960's. The transmitter was designed and built by Ben Roe, K0YDS, and ran several 6CL6's driving an 807 final. Our audio system was a homebrew sand state board, driving a homebrew amplifier/modulator that owed a lot to the Ampex tape systems of the day. The fidelity was incredible, and the station sounded great, even on opera. The transmitter was stable, and gave very little trouble. We set up coupling networks in each dormitory, and fed them with coax cable. How we got the matching networks into the girls' dorms, which in those days were guarded by armed eunuchs, is still a closely guarded secret. We covered our campus well, and a good car radio could hear the station for about a half mile to the east. To the west, though, things were a bit different. Apparently, the way the dorms were situated beamed the signal out that way very well. One of my friends who stayed there longer, told me that the station was picked up by the FCC monitoring station in Grand Island, about 100 miles west of Lincoln. They checked it out, and were rather surprised since otherwise it was within the carrier current specs for those days. It was a lot of fun to work in the station. It was located in the top floor of an old building on campus that was haunted. Occasionally, when leaving, and we were the only ones in the building that late at night, we could hear footsteps creaking on the old floors. Aside from the ghost, which was seen by the Dean of Students, the people in the station were a really great bunch.

73,

Steve WA9JML

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Message-Id: <5.1.0.14.0.20020710132609.04471620@vuse.vanderbilt.edu>  
Date: Wed, 10 Jul 2002 13:38:44 -0500  
To: Old Tube Radios <boatanchors@theporch.com>  
From: "A. B. Bonds" <ab@vuse.vanderbilt.edu>  
Subject: Re: transmitting OTR -> broadcast receivers  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 12:04 PM 7/10/2002 -0500, you wrote:

>I was one of the engineers and the news director at KWLN, a carrier  
>current station at Nebraska Wesleyan back in the mid 1960's. The  
>transmitter was designed and built by Ben Roe, K0YDS, and ran several  
>6CL6's driving an 807 final. Our audio system was a homebrew sand state  
>board, driving a homebrew amplifier/modulator that owed a lot to the  
>Ampex tape systems of the day. The fidelity was incredible, and the  
>station sounded great, even on opera. The transmitter was stable, and  
>gave very little trouble. We set up coupling networks in each  
>dormitory, and fed them with coax cable.

A familiar story. Back in dinosaur days I worked for WVBR at Cornell, where (in addition to the classical/jazz FM arm) we ran a separate CC AM operation at 640 kHz. We had at peak seven transmitters, some driving AC lines in several nearby dorms. The CC rules were less about input power and more about radiated power at a distance, so we felt it reasonable to be creative. Our killer units (I recall 3 or 4 of them having been built) were designed by Mike Ernstoff (which he did instead of classes during spring semester of his junior year). They involved twin parallel 807 (or 1625) finals, class C, transformer modulated by a pair of KT-88's (class AB). Audio was supplied through equalized phone lines and my recollection was these babies were good to about 12 kHz, so the sound was great. We would find a fortuitous dead spot to make our field measurements to stay legal (sure). One of the units could be picked up in the parking lot of a McDonald's about 7 miles away. By experimentation we found it to be one that was driving eight different dorms, so the radiation pattern had to be idiosyncratic.

About a year after I left, the rock 'n roll forces took over the FM station and the CC operation slowly deteriorated. Although the station prospered for about a decade more, most of the technical staff left and no new people were attracted. When I visited two years ago the station was nearly out of business and the only engineer on staff was a hired professional.

Sigh. Sic transit....



A. B. Bonds

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End of BOATANCHORS Digest 3363

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